

IN THE CLAIMS:

Please cancel claims 2-4 without prejudice to or disclaimer of the subject matter recited therein.

Please amend claims 1 and 5-9 as follows:

LISTING OF CURRENT CLAIMS

5 1. (Currently Amended) A data transmission interface compatible with USB protocols, including USB 1.0, USB 1.1 or and USB 2.0 protocols, and comprising at least the following interface signals: Vbus, D0+, D0-, D1+, D1- and GND signals, D0+, D0- are one differential signal set, D1+, D1- are another differential signal set, Vbus offers interface power, GND connects to ground, said differential signal sets D0+, D0- and D1+, D1- are further designed into Master-Slave structure, said D0+, D0- is Master and said D1+, D1- is Slave, said Master signals D0+, D0- are responsible for coordination USB 1.0, USB 1.1 or USB 2.0 interfaces as well as data transmission.

Claims 2-4. (Canceled)

5 5. (Currently Amended) The data transmission interface recited in claim 3~~1~~, wherein said Slave differential signal set D1+, D1- in a Dual Channel Universal Serial Bus (DCUSB) device are responsible for data transmission and for enhancing the data transmission rate of said interface.

5 6. (Currently Amended) The data transmission interface recited in claim 4~~5~~, wherein said Master differential signal set D0+, D0- and said Slave differential signal set D1+, D1- apply Chirp sequence to complete the transmission protocol, the Chirp sequence comprises of a plurality of Chirp J and Chirp K, Chirp J in said Master signal set is D0+=1 and D0-=0, Chirp J in said Slave signal set is D1+=1 and D1-=0, Chirp K in said Master signal set is D0+=0 and D0-=1, Chirp K in said Slave signal set is D1+=0 and D1-=1.

7. (Currently Amended) The data transmission interface recited in claim 31, wherein said Master differential signal set and said Slave differential signal set are not synchronous in time, when data transmission error occurs in one of said differential signal sets, ~~the~~an interface controller stops sending out data but continues sending out ~~the~~a same Data packet until the interface controller on the reception side receives correct data and sends out a Handshake packet.

8. (Currently Amended) A Dual Channel Universal Serial Bus (DCUSB) ~~device is compatible with USB protocol transmission interface and comprises of two data transmission channels, every said channel further comprises of two differential signals, the structure consists of a,~~ wherein the interface comprises four differential signals, which are grouped into Master differential signal set and Slave differential signal set, wherein said Master differential signal set is responsible for the transmission protocols of USB or DCUSB to a host system and is compatible with USB protocol transmission interface; said Slave differential signal set is for enhancing the data transmission rate of the interface wherein said device further comprises an interface controller with data conversion and transmission functions.

9. (Currently Amended) The Dual Channel Universal Serial Bus (DCUSB) device recited in claim 85, wherein said interface controller consists at least of a Differential receiver and a current driver, said Differential receiver and said current driver ~~connect~~being electrically connected to differential signals of interface channels ~~through proper circuitry~~.